

MICROELECTRONIC DEVICES AND METHODS FOR MOUNTING
MICROELECTRONIC PACKAGES TO CIRCUIT BOARDS

ABSTRACT OF THE DISCLOSURE

Packaged microelectronic devices, methods of manufacturing packaged microelectronic devices, and method of mounting packaged microelectronic devices to printed circuit boards. One embodiment can include a die, an interposer substrate, a solder-ball, and a dielectric compound. The die can have an integrated circuit and at least one bond-pad coupled to the integrated circuit. The interposer substrate is coupled to the die and can have at least one ball-pad electrically coupled to the bond-pad on the die. The interposer substrate can also have a trace line adjacent to the ball-pad, and a solder-mask having an opening over the ball-pad. The solder-ball can contact the ball-pad in the opening. The dielectric compound can insulate the ball-pad and the solder-ball from an exposed portion of the adjacent trace line in the opening.